REMARKS

Claims 1 to 10 and 18 to 19 are withdrawn. Claims 1 to 17 remain, of which claims 11 and 13 are currently amended. Applicant has added new claims 20 to 29. These new claims recite RAFTIN1 nucleotide sequences and promotors identified by SEQ ID NO. Support may be found, for example, on pages 5 and 6 of the description.

Specification

The Examiner objected to the disclosure because it contains an embedded hyperlink and/or other form of browser/executible code. In response, Applicant has deleted the websites identified on pages 9 and 19 of the description.

Applicant has amended the trade-mark "GenomeWalker™" by reciting this term in capitalized letters as requested by the Examiner, and has added a brief description thereof. Applicant has also added a description of SUPERSCRIPT II ™ on page 19, paragraph three.

Applicant corrected the apparent typographical error on page 7, line 31 of the description, replacing "southern analysis" with "--Southern analysis--".

Applicant has added the SEQ ID NOs for the sequences referred to in Figure 4(a) as requested by the Examiner.

Objection to the Drawings

Applicant submits that the Examiner's objection to the drawings is believed overcome with the amendment referred to in the preceding paragraph.

Claim Objections

The Examiner objected to claim 11 for not reciting the article "a" before "sense". Applicant has now inserted the indefinite article "a" in claim 11.

Claim Rejections

The Examiner objected to claims 11 to 17 under 35 U.S.C. 112 as failing to comply with the written description requirement. The Examiner stated that "the specification only describes RAFTIN1 gene not RAFTIN gene as claimed". In response, Applicant has amended the claims to refer to "RAFTIN1" nucleotide sequences rather than "RAFTIN" nucleotide sequences. Applicant submits that a representative number of RAFTIN1 nucleotide sequences have been disclosed in the application and that other RAFTIN1 nucleotide sequences, such as they may be, can be readily ascertained through appropriate nucleotide database searches, as indicated on pages 9 and 10 of the specification. Applicant submits that it is not required that every member of a genus be listed in the specification. Withdrawal of the Examiner's rejection under 35 U.S.C. 112 is respectfully requested.

The Examiner objected to claims 11 to 17 under 35 U.S.C. 112 because according to the Examiner, the present application "does not reasonable provide enablement for said RNA hairpin construct wherein the RAFTIN sequence with any length or any transgenic plant or cells comprising said plant transformation vector". The amended claims refer to RAFTIN1 nucleotide sequences rather than RAFTIN nucleotide sequences. "The test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent couples with information known in the art without undue experimentation." (*U.S. v. Teletronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988)). Applicant submits that one of skill in the art could make and use the claimed invention without undue experimentation. The disclosure provides a number of usable variations of RAFTIN1 nucleotide sequences and provides guidance on how to construct and use intron-spliced hairpin constructs for inducing male sterility in plants (pages 12-14). Applicant further notes that "the mere fact that the experimentation may [be] difficult or time consuming does not mandate a conclusion that such experimentation would [be] considered 'undue'." (*Falko-Gunter Falkner v. Inglis*, 4418 F.3d 1357, 1365 (Fed. Cir. 2006)). Applicant respectfully requests the Examiner to withdraw this rejection.

The Examiner rejected claims 11 to 17 under 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Sasaki et al. Applicant respectfully traverses.

Applicant respectfully submits that neither of the two cited references discloses or teaches that RAFTIN1 sequences are implicated in male sterility or fertility. Therefore, it cannot be obvious that an intron-spliced RNA hairpin construct as claimed will confer male sterility or modulated male fertility in a plant, seed or cell transformed with the construct. Claim 11 is amended to further stress this point.

The Examiner bases his argument for the motivation for combining the references on the idea that "studying the gene function of a rice RAFTIN orthologue is highly desirable" (page 11 of the Office Action). Applicant respectfully submits that this rationale is inappropriate for a finding of obviousness. Indeed, such rationale is the basis for all research, so it would follow from the Examiner's argument that all research is obvious, which, of course, is clearly not the case.

The Examiner further argues on page 11 of the Office Action, that the combined teaching of the prior art "would be obviously used for producing a plant having male sterility or modulated male fertility". The Examiner appears to be confusing the test for inherency in a single prior art document with the test for obviousness when combining two prior art documents. Smith et al. disclose methods that do not and cannot result in a construct that confers male sterility or modulated male fertility in a plant, seed or cell. Further, Sasaki merely discloses the sequence of a RAFTIN1 orthologue and does not teach or even hint at any implication in male sterility or modulated male fertility. There is no information in the cited prior art that would lead one skilled in the art to creating the intron-spliced RNA hairpin construct of the present invention that confers male sterility or modulated male fertility in a plant, seed or cell.

Applicant respectfully submits that, armed with the knowledge provided in the present specification, the Examiner has improperly used hindsight to combine disparate documents in an attempt to arrive at the presently claimed invention.

Applicant submits that there is no teaching, suggestion or motivation in the prior art that would lead one of ordinary skill to combine Smith et al. with Sasaki et al. to arrive at the presently claimed invention. Further, it is not predictable that combining the elements of Smith

et al. and Sasaki et al. would lead to a construct having the result of conferring male sterility or modulated male fertility in a plant, seed or cell. Therefore, the Examiner has not established a *prima facie* case for obviousness.

Thus, Applicant respectfully submits that the presently claimed invention is inventive over the cited prior art.

Favourable reconsideration of this application is respectfully requested.

The Commissioner is hereby authorized to debit $750.00 from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP, representing a one month extension of time fee and three extra independent claim fees.

The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Respectfully submitted,
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